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THE FUTURE FARMER OF TODAY IS THE SUCCESSFUL FARMER OF TOMORROW, AN AUTHORITATIVE REPORT ON THE DIFFUSION PROCESS AND THE ADOPTION STATUS OF FARMERS.

FUTURE FARMERS OF AMERICA, WASHINGTON, D.C.
EDRS PRICE MF-$0.25 HC-$0.52 11P.

DESCRIPTORS- *VOCATIONAL AGRICULTURE, *ADOPTION (IDEAS), YOUTH CLUBS, *FARMERS, *EDUCATIONAL BACKGROUND, NATIONAL SURVEYS, *DIFFUSION, INDIVIDUAL CHARACTERISTICS,

A SYNOPSIS OF CHARACTERISTICS AND COMMUNICATIONS BEHAVIOR OF ADOPTERS OF NEW FARM IDEAS, AND AN INTRODUCTION TO HOW AN AGGRESSIVE MARKETING PROGRAM CAN BE KEYED TO THE DIFFUSION PROCESS AND ADOPTION STATUS OF FARMERS IS PRESENTED. THE DIFFUSION PROCESS INVOLVES THE SPREAD OF NEW IDEAS FROM THE SOURCES OF DEVELOPMENT TO THE ADOPTER THROUGH COMMUNICATION. IN THE ADOPTION PROCESS, AN INDIVIDUAL PASSES THROUGH THE STAGES OF AWARENESS, INTEREST, EVALUATION, TRIAL, AND ADOPTION. TECHNOLOGICAL INNOVATIONS IN FARMING TEND TO FLOW FROM THE IMPERSONAL SOURCES TO THE EARLIER ADOPTERS AND FROM THEM AS PERSONAL COMMUNICATION TO THE LATER ADOPTERS. EARLY ADOPTERS REPRESENT ONE OF THE MOST IMPORTANT FACTORS IN THE AGRICULTURAL MARKETING PICTURE. THE 3,778 MEMBERS OF THE DOANE COUNTRYWIDE FARM PANEL UNDER 45 YEARS OF AGE WERE SURVEYED TO DETERMINE WHETHER A RELATIONSHIP EXISTS BETWEEN A FARMER'S HAVING STUDIED VOCATIONAL AGRICULTURE AND HIS PRESENT ADOPTION STATUS. EACH FARMER ON THE PANEL WAS CATEGORIZED AS AN EARLY ADOPTER, A MIDDLE ADOPTER, OR A LATE ADOPTER. THE PRIMARY COMPARISONS WERE MADE BETWEEN THOSE FARMERS WHO HAD VOCATIONAL AGRICULTURE TRAINING AND THOSE WHO HAD NONE. THERE TENDED TO BE A HIGHER PROPORTION OF EARLY ADOPTERS AMONG THOSE FARMERS WHO HAD VOCATIONAL AGRICULTURE. IT WAS CONCLUDED THAT AGRICULTURAL MARKETERS SHOULD CONSIDER THE FUTURE FARMERS WITH VOCATIONAL AGRICULTURE TRAINING AS THE ONES WHO BECOME EARLY ADOPTERS. (WB)

ED018545

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The Future Farmer of *today* is the successful farmer of *tomorrow!*

An authoritative report on the diffusion process and the adoption status of farmers.
Plus, *a supporting survey conducted by Doane Agricultural Service, Inc., for*
The National FUTURE FARMER. .

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This report is offered as a service to those in the field of agricultural marketing. It presents a concise analysis of recent research findings on the adoption of new ideas among farmers. It also reveals the unique role that Vocational Agriculture plays in this diffusion process — particularly with the early adopter. The basic summary of this research has been validated by a distinguished panel of consultants, each a recognized specialist in his field.

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. . . FIRST, SOMEBODY HAS TO SELL SOMETHING!

Agricultural marketers are looking for more effective ways to *sell* to the farm market. Certainly, "*nothing happens 'till somebody sells something.*" *Who* are the best prospective customers and *how* best to sell them, are questions receiving considerable research effort today.

Much of this work has been conducted in probing the basic area of "how farm people accept new ideas." A special committee of representatives from midwestern agricultural colleges has pioneered this field through their study of the diffusion of farm practices. Other rural sociologists have also contributed a great deal to our knowledge of the factors affecting the adoption of improved farm technology. Drs. Beal and Bohlen of Iowa State University have done significant work in exploring the *diffusion process* and the resultant *adoption status* of farmers.[1]

This report is an effort to help Agribusiness take advantage of these new theories through *practical application*. The acceptance of a new idea — or a new product — is a complex process involving a sequence of thoughts and actions. In a sense the influencing of change is an art, requiring a sensitive perception of the many phases of the acceptance process. It also requires making effective use of the various means of influencing acceptance. Here then, is a synopsis of the characteristics and communications behavior of adopters of new farm ideas *and* an introduction to how an aggressive marketing program can be keyed to this new concept.

[1]Acknowledgment is made to the North Central Rural Sociology Committee and several state colleges of agriculture for the use of their research in preparing this report.

ADOPTION / DIFFUSION

Actually two correlated processes are involved in bringing new ideas from their source of initial development to acceptance by farmers. These processes are termed *adoption* and *diffusion*. Research has shown these to be discrete processes, and yet very closely interrelated.

The Adoption Process

The adoption process is a mental process through which *an individual* passes from first learning about a new idea to its final adoption. It is a series of stages which an adopter goes through in deciding to adopt a new farm practice. These five stages are:

AWARENESS — the individual is initially exposed to the new idea. He is aware of the new practice but lacks information about it.

INTEREST — The individual becomes interested in the idea and is motivated to seek additional information about it.

EVALUATION — the individual mentally applies the new practice to his own situation — present or future. The decision either to try it or not is made.

TRIAL — the individual actually tries out the new practice on his own farm. This is usually on a small-scale, experimental basis. He especially needs specific information on "how to do it" at this stage.

ADOPTION — after an evaluation of the trial, the individual decides to accept the new idea for full-scale and continued use. He is satisfied and incorporates the practice into his way of farming.

Research shows that these stages are not merely theoretical, but actually are real in the minds of farm people. Though this is a basic process, applicable to all, the length of the adoption period varies with circumstances. The complexity of the practice is a significant factor. Changes which involve new skills or techniques may require longer periods of time. On the other hand, the greater the efficiency of the new technology in producing returns, the greater its rate of acceptance. The most important single factor in the relative speed of adoption, however, is *the individual's general attitude toward modern agricultural science*. This attitude, in turn, is reflected in the adoption status discussed later.

An integral part of the adoption process is the communication of information at the various stages. Farmers use different sources of information during the separate stages of this mental process. Generally these sources may be classified as:

- **MASS MEDIA** — Farm magazines, farm papers and the broadcast medium.
- **AGRICULTURAL AGENCIES** — Direct contact with professional personnel in Vocational Agriculture, Soil Conservation Service, Extension Service, agricultural college and experiment station.
- **COMMERCIAL SOURCES** — Dealers, salesmen, house organs and direct mail.
- **INFORMAL SOURCES** — Relatives, friends, and neighbors — mostly other farmers.

Below is a table showing the order of the sources used by most farmers at different stages. It should be pointed out that this rank may vary for any single farming practice, or—even more so—with the adopter category of the particular farmer. Again, the complexity of the innovation is related to the choice of sources. When farmers are making a decision to adopt a new idea, they rely on the sources they consider to be objective.

Table 1. *Sources of Information During Stages of The Adoption Process*

AWARENESS	INTEREST	EVALUATION	TRIAL	ADOPTION
1. Mass media 2. Agricultural agencies 3. Friends & neighbors 4. Commercial sources	1. Mass media 2. Agricultural agencies 3. Friends & neighbors 4. Commercial sources	1. Friends & neighbors 2. Agricultural agencies 3. Mass media 4. Commercial sources	1. Friends & neighbors 2. Agricultural agencies 3. Mass media 4. Commercial sources	Personal satisfaction with the idea is the most important factor in its continued use.

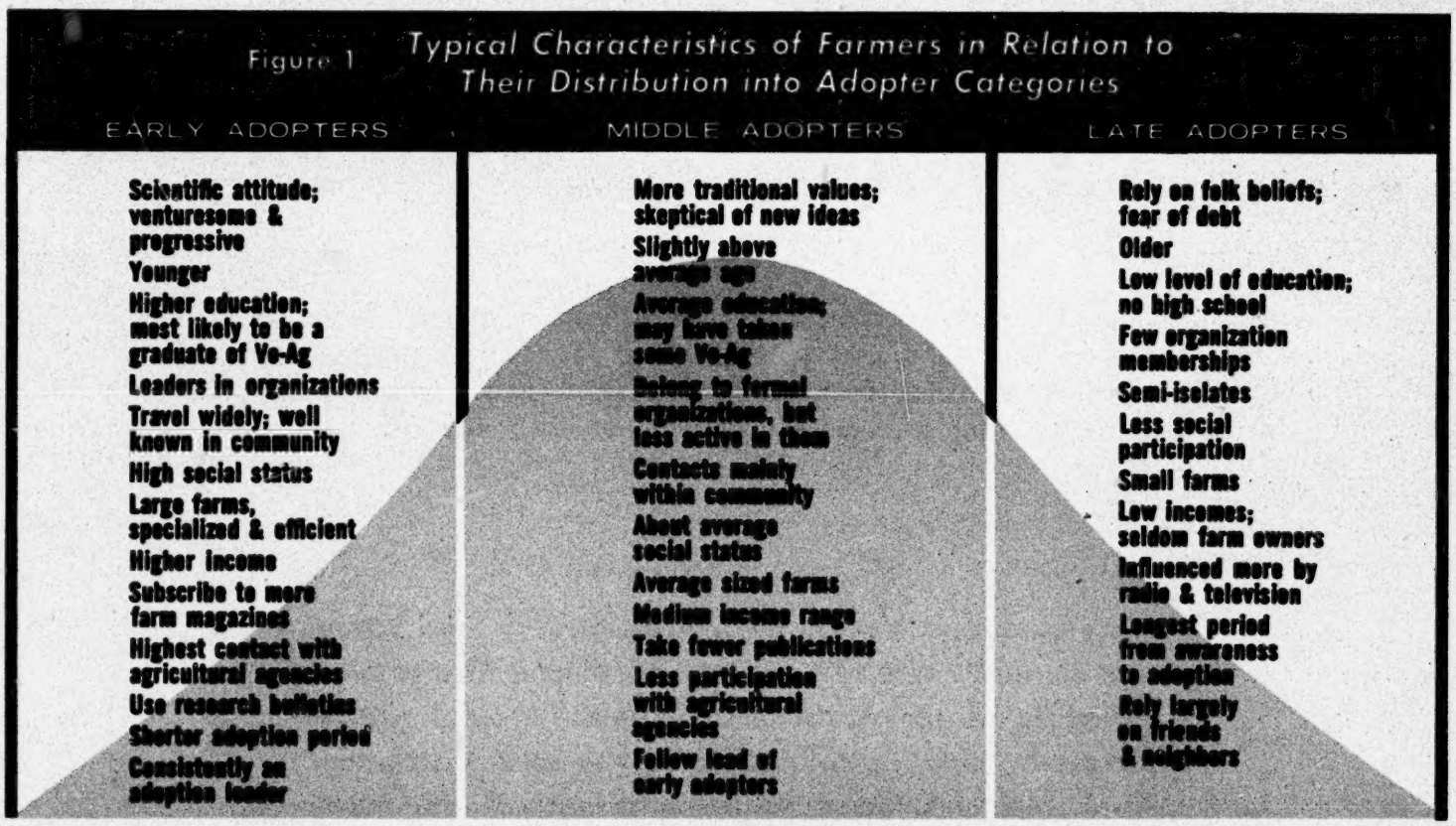
The Diffusion Process

The diffusion process involves the spread of new ideas from the sources of development to the adopter — from the scientist or engineer to the farmer. This process deals with the flow of innovations through the channels of communication and is primarily a dissemination *between individuals*. The socio-economic characteristics of the different farmers are an important part of this diffusion.

Not all farmers adopt a new practice at the same time. Research indicates that the diffusion of an innovation requires several years. At first, a few farmers adopt it; then in a few years, a large number accept it; and finally, the rest "give in" to progress. This typical diffusion pattern approximates a normal (bell-shaped) distribution curve when plotted against time of adoption. Using the latter as a basis, farmers may then be distributed into adopter categories.[2]

Significant differences are found between early and late adopters when several pertinent characteristics are compared. The distribution into adopter categories and a comparison of the personal and farm business characteristics of these adopters is graphically illustrated in the accompanying figure.

Figure 1 *Typical Characteristics of Farmers in Relation to Their Distribution into Adopter Categories*


EARLY ADOPTERS
MIDDLE ADOPTERS
LATE ADOPTERS
PERCENT ADOPTION
Scientific attitude; venturesome & progressive
Younger
Higher education; most likely to be a graduate of Ve-Ag
Leaders in organizations
Travel widely; well known in community
High social status
Large farms, specialized & efficient
Higher income
Subscribe to more farm magazines
Highest contact with agricultural agencies
Use research bulletins
Shorter adoption period
Consistently an adoption leader
More traditional values; skeptical of new ideas
Slightly above average age
Average education; may have taken some Ve-Ag
Belong to formal organizations, but less active in them
Contacts mainly within community
About average social status
Average sized farms
Medium income range
Take fewer publications
Less participation with agricultural agencies
Follow lead of early adopters
Rely on folk beliefs; fear of debt
Older
Low level of education; no high school
Few organization memberships
Semi-isolates
Less social participation
Small farms
Low incomes; seldom farm owners
Influenced more by radio & television
Longest period from awareness to adoption
Rely largely on friends & neighbors
TIME OF ADOPTION

In relating the adoption process to the diffusion process, it should be remembered that while adoption is an individual matter, diffusion occurs between persons. Thus, diffusion is largely the influence of younger, more modern farmers on others. This sociological chain reaction is often referred to as the "trickle-down" theory. Academically stated: Technological innovations in farming tend to flow from the impersonal sources to the earlier adopters and from them as personal communication to the later adopters.[3]

[2]Rural sociologists commonly list five such categories: innovators, early adopters, early majority, late majority and laggards. As the Doane Countrywide Farm Panel uses a more basic classification — *early adopters, middle adopters, late adopters* — these three categories will be used in this report.

[3]Though this report deals exclusively with the area of agriculture, the basic adoption/diffusion processes are supported by research on acceptance of new ideas in education, medicine, industry and politics.

The Early Adopter

It can readily be seen that early adopters are a distinctive group. They are respected and have prestige. They are innovators and influencers. As such, they represent one of the most important factors in the agricultural marketing picture today.

Early adopters have the ability to utilize technical information and are able to deal with abstractions. They reach decisions more quickly; are more prone to adopt a new practice on the basis of research findings. They are willing to borrow money and to take risks in order to realize a profit. These adoption leaders can provide the local trial that is necessary to show that a new product is locally applicable and usable. The middle adopters look to them for advice. Their attitudes toward farming are a part of their success: they view farming as a business, see it as a problem-solving situation and adjust their farm operations to changing conditions. Farm record keeping proves that the practices they have adopted are profitable.

To the early adopter, the farm family is important as an economic unit. Their efforts are concentrated toward a group achievement. A reflection of such a pattern of family values may be seen in the following:

The early adopter knows that the well managed commercial farm can still be a family operation. He encourages his son to share in the operation of the farm, both in ownership and income. He takes advantage of the expansion opportunities afforded in a sound partnership agreement. His son participates in decision making,[4] and helps run the family farm.

Not only does the early adopter have more education, he and his family, quite naturally, have a favorable attitude toward educational programs. In this regard, here is a *representative description* of the type of educational activities that studies show tend to be associated with an early adopter:

His son studies Vocational Agriculture in high school and is more likely to become a successful farmer also. The early adopter participates in young or adult farmer programs, such as conducted by the local Vocational Agriculture instructor, to keep abreast of the many developments science is bringing to agriculture. A former Vo-Ag student himself, he knows firsthand the value of this program. It is the leadership experience he received through the Future Farmers of America that contributes to his sphere of influence in the farm organizations he leads.

[4]Research has shown, 1) farmers who have high school age sons — who encourage the adoption of new practices — are among the earlier adopters; 2) young farmers tend to be more aware of and more favorable toward new ideas.

One of the significant characteristics of the early adopter is his *achievement motivation* — the propensity to succeed. He has drive, ambition, an agricultural zeal. A spirit of competition and the desire to win may be a part of this motivation. He is aware of the prestige that is attached to the adoption of new ideas and techniques. It has been found that this behavior pattern is influenced by the groups and organizations he is, or has been, associated with. In some, changes in farming are encouraged and expected. The emphasis they place upon individualism and personal success, has a positive relationship with adoption. Organizations whose objectives include the promotion of changes aid both directly and indirectly in the diffusion process. The foregoing is also a characterization of the role of the Future Farmers of America.

Education is one of the basic values in our society. A favorable attitude toward education indicates a recognition that science and the accumulated experience of others is a prerequisite for successful farming. Such an understanding of the importance of training in agriculture is indicative that much more than the basic skills of "reading, writing and arithmetic" are considered essential for the farmer of today — and tomorrow. *The conclusion of this adoption research is that education has a highly significant, positive relationship with acceptance of innovations in farming. This includes the education of the early adopter himself, and the value he places on education for his son who is going into farming.*

The results that have been presented thus far give agri-marketing people a clear-cut answer to the original question, "Who are the best prospective customers?" Early adopters are the key! Not only do they have the most farm buying power themselves, they in turn can help you sell the middle adopters who follow their lead.

"How best to sell them?"

. . . is the next question. Many ideas for reaching and selling early adopters come from the description that has been given of them. Because of their education, they are a discerning group. Effective advertising can play an important role. Farm magazines stand out as the media that influence them most.

This is where *The National FUTURE FARMER* comes in. It is owned and published by the Future Farmers of America, whose members are students, or graduates, of Vocational Agriculture. It is the magazine for the young man on the farm. The vital part that vocational education in agriculture has in the adoption process has already been clearly demonstrated. Education, per se, also has a close association with diffusion, and therefore with early adopters. The question then arises, is there an inherent relationship between Vocational Agriculture and early adopters?

To find the answer, Doane Agricultural Service, Inc., was retained by the Magazine to research this area. Doane is well known and well established in the field of agriculture. It is the oldest and largest organization engaged in farm management, agricultural writing, rural appraising and agricultural research. Their staff of agricultural specialists includes economists, researchers, engineers, farm managers. They are equipped in both staff and services, to help solve the complex problems of a modern agriculture. Doane's reputation as "America's Agricultural Authority" is well deserved. Doane has pioneered in the field of nationwide farm market research by its establishment of the Doane Countrywide Farm Panel. This Panel was surveyed by Doane's Marketing Research Division to answer the question.

About the Panel

The Doane Countrywide Farm Panel is a carefully balanced sample of the nation's farm market. The 3,778 members have been chosen so their purchases and farming characteristics are representative of all commercial farms (those with $2,500 or more annual gross income). The Panel was selected by stratified sampling techniques to represent the farm market as defined by the Census of Agriculture. The following characteristics serve as controls on proper representation: geographic distribution by states, by size of farm, by farm income, by farm tenure and type of farm.

In addition to these statistical criteria, after selection, Panel members are categorized by adoption status. The procedure used corresponds to that described in the diffusion process. Each farmer on the Panel is identified as an **early adopter, middle adopter** or **late adopter** and typed accordingly. The approximate percentage distribution into adopter categories is 25%, 50%, 25%, respectively. This classification permits comparison of the characteristics of the separate adopter groups within the Panel.

The sample is rigidly maintained to assure continued representativeness. Checks of reporting accuracy reveal a high degree of exactness. The Doane Countrywide Farm Panel is used by many of the nation's leading farm advertisers to obtain current market information.

About the Survey

The purpose of this survey was to determine if a relationship exists between a farmer's having studied Vocational Agriculture and his present adoption status. The Doane Countrywide Farm Panel constitutes a valid sample of farmers for this purpose. It is representative, contains both farmers who did and did not take Vo-Ag, and provides the adopter categories necessary for differentiation.

It was decided in advance that the comparison would be limited to those Panel members under 45 years of age. This was done for two reasons: 1) older farmers would have been more than thirty years beyond the experience being tested; 2) the Vo-Ag/FFA program was not widely established until about 1930.

The primary comparison between those farmers who had Vo-Ag training and those who had none, was cross tabulated by adopter category. In order to account for their general level of education and to allow a more critical examination of the differences, if any, the results are presented under four classifications:

- Those Panel members with no high school
- Those with some high school, 1 to 3 years
- Those who had completed high school
- Those with some college, including those who had graduated

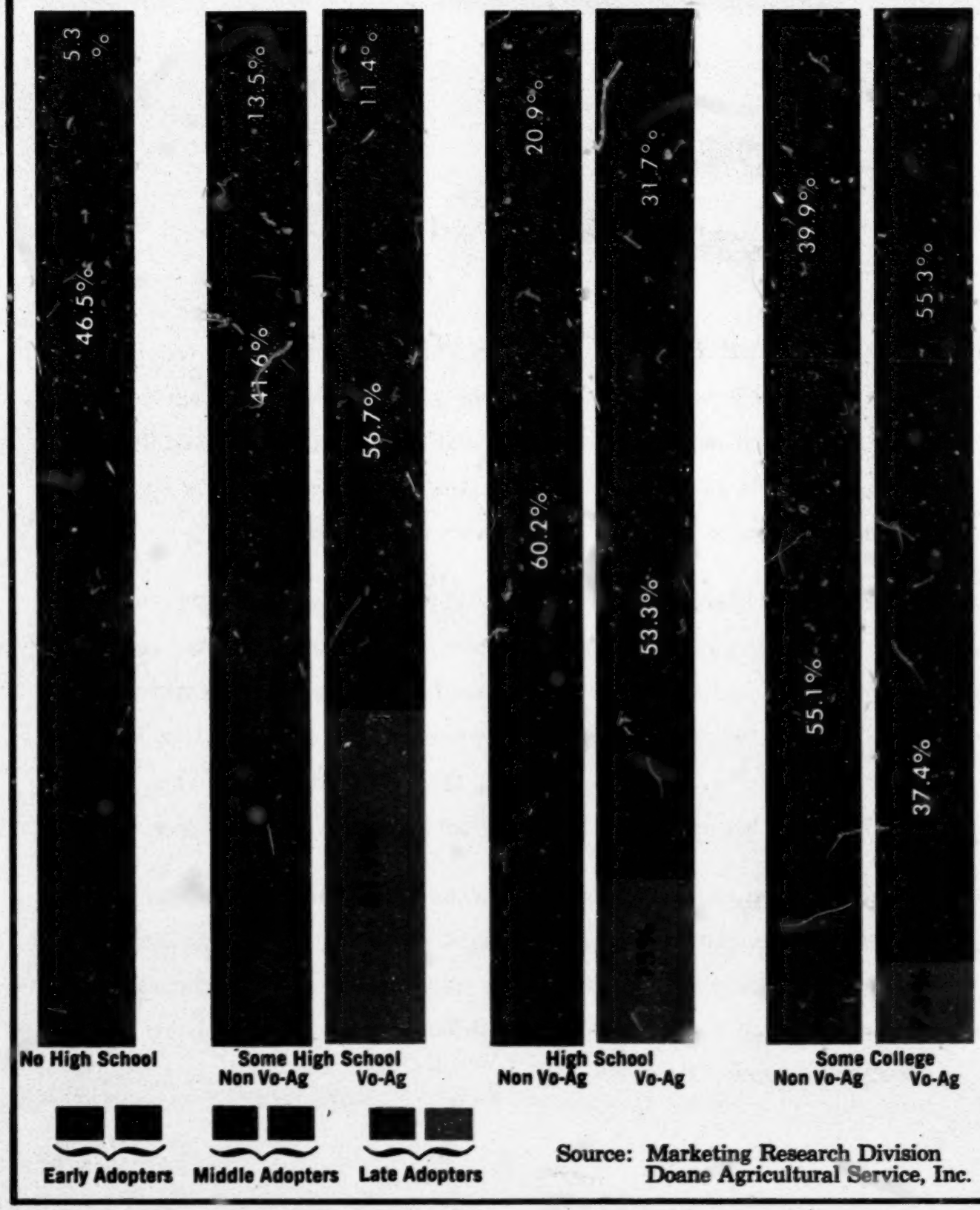
Each of the latter three are then divided into "Vo-Ag" and "non Vo-Ag" sub-groups. These definitions are used for the "Vo-Ag" groups:

- Some high school — 1 to 3 years of Vo-Ag
- Completed high school — 3 or 4 years of Vo-Ag
- Some college — 3 or 4 years of Vo-Ag

The three corresponding "non Vo-Ag" groups are made up of all other Panel members surveyed.

The survey data was gathered during January, 1963. The tabulation was made on 3,000 usable questionnaires. The results, shown in bar graph form, appear in the adjacent figure.

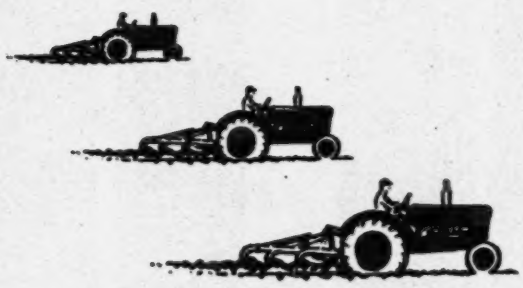
Figure 2. ***Adoption Status of Commercial Farmers under 45 years of age Vo-Ag Contrasted with Non Vo-Ag***



Source: Marketing Research Division
Doane Agricultural Service, Inc.

Based on the results of this survey of their Farm Panel, Doane makes this conclusion on these findings:

"There tends to be a higher proportion of early adopters among those with Vo-Ag than the non Vo-Ag's. The converse applies in the case of the late adopters. The more Vocational Agriculture and other education that early adopters receive, the greater the difference appears. A positive relationship does exist between a farmer's having studied Vo-Ag and his status as an early adopter."



The National FUTURE FARMER **can help you tell your story — and sell your product — to the early adopter. The educated, young farmers it reaches are the ones who become early adopters. Their Vo-Ag and FFA training assure this. This is why we say:** ***The Future Farmer of today, is the successful farmer of tomorrow!***

The value of placing your advertising in the magazine for the young man on the farm does not lie in the merits of its future market alone, however (*as bright as it may be*). It is readily seen that these farm youth come from a very favorable farming environment. The influence they have on their fathers has been proven. Thus, the Future Farmer provides the best access to his dad — who is more likely to be an early adopter, too.

In addition to the primary readers the Magazine offers, students of Vocational Agriculture, it has important secondary readership among their fathers and Vo-Ag teachers. The valuable role these teachers play in the adoption process has been illustrated. This adds a real plus to the Magazine's principal market.

And that market begins today! With the Future Farmer, as he builds his farming program through Vocational Agriculture . . . as he grows into farming. He is already making decisions and buying goods and services — a solid **present** market.

It is important to reach him today because now he is at his most receptive age. This is the big advantage of the youth market. Consider, also, that now one magazine delivers you the bulk of the early adopter market you're after. To reach this same group five years from now, it will take several publications.

Future Farmers are very much a part of the farm market! Make *The National FUTURE FARMER* a part of your advertising campaign. Get in on the ground floor by pre-selling this vital 3-Star Market. This is your chance to make tomorrow's sale — *today!*

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